REMARKS

Upon entry of the foregoing amendment claims 1 and 3 are pending. Claim 2 has been cancelled. Claims 1 and 3 have been amended. Support for the amended claims can be found at page 10, lines 7-28. No new matter has been added by these claim amendments.

Rejection Under 35 U.S.C. §112, Second Paragraph

Claims 1-3 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention. In particular claims 1-3 were rejected as unclear because (a) in claim 1, the phrase "corresponds to" and the phrase "endoplasmic reticulum-associated polypeptide" are both non-specific relational terms; (b) in claim 1, the phrase "determining the sequence of the nucleic acid and its expression level" is unclear; and (c) in claim 3, the term "identification" lacks antecedent basis. The claims have been amended to address these rejections. Applicant submits that in light of the claim amendments, the rejections under 35 U.S.C. § 112, second paragraph should be reconsidered and withdrawn.

Rejection Under 35 U.S.C. §102

Claims 1 and 2 were rejected under 102 (e) as being anticipated by U.S. Patent Number 6,013,437 to Luria, et al., (hereinafter "Luria"). Applicant respectfully traverse this rejection to the extent that it is maintained over the claims as amended herein.

The claimed invention is directed to a method for identifying a polynucleotide sequence and its expression level wherein the polynucleotide encodes a membrane-bound or secreted protein. The present invention teaches a technique where polynucleotides are isolated from the cells and separated into different fractions. The microsomal fraction is then analyzed using a technique to identify the polynucleotide sequence and its expression level.

Luria discloses a method for identifying genes that are translationally regulated by selectively stimulating translation of an unknown target mRNA with a stress inducing

element. Luria teaches a technique where cells to be analyzed are stimulated by a stress inducing element. Following stimulation of the translation of RNA, the RNA from the cell is isolated from the cells using techniques know in the art (column 5, lines 5-19.). The mRNA is then separated into pools of translated and untranslated mRNA. The translated mRNA, the mRNA that is stimulated by the stress inducing element, is then further analyzed.

Luria does not disclose the claimed invention. Luria can be distinguished from the claimed invention because there is no teaching or suggestion in Luria of isolating the microsomal fraction of polynucleotides from the cytoplasmic components. Luria describes an experiment in which **cytoplasmic** extracts were applied to a sucrose gradient (column 11, limes 5-10) yet there is no reference to isolation and characterization of the **microsomal** fraction. Luria does not teach or suggest a method of separating and analyzing polynucleotides that encode membrane-bound and secreted protein by isolating an analyzing the microsomal fraction of a cellular homogenate.

Rejection Under 35 U.S.C. §103

Claim 3 were rejected under §103 as being anticipated by U.S. Patent Number 6,013,437 to Luria, et al., (hereinafter "Luria") in view of U.S. Patent Number 5,695,937 to Kinzler et al. (hereinafter "Kinzler"). Applicant respectfully traverse this rejection to the extent that it is maintained over the claims as amended herein.

As stated above, Luria does not teach or suggest a method of isolating and analyzing polynucleotides from the microsomal fraction (i.e. polynucleotides that encode membrane-bound and secreted polypeptides). Luria teaches a method of analyzing the cytoplasmic fraction to identify translationally regulated genes following selective stimulation. This is fundamentally different from the claimed method of identifying a polynucleotide that encodes a membrane-bound or secreted protein and determining its expression level.

The Kinzler reference fails to overcome the deficiencies of the Luria reference. Kinzler teaches the SAGE method. Kinzler fails to teach or suggest a method of isolating and analyzing polynucleotides that encode membrane-bound or secreted

proteins. A skilled artisan would not have been motivated to use serial analysis gene expression (SAGE) to analyze the microsomal fraction of the cellular homogenate. Thus, the claimed method would not have been obvious to a person skilled in the art relying on Luria in combination with Kinzler.

Conclusion

In view of the amendments and remarks filed herein, Applicant respectfully requests that the rejections should be reconsidered and withdrawn. If the Examiner believes that a conversation with the Applicant's attorney would be helpful in expediting prosecution of this application, the Examiner is invited to call the undersigned.

If there are any charges, or any credits, please apply them to Deposit Account No. 07-1074.

Respectfully submitted,

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